

A system and method for transmitting data in a data communications network, using a transmission control protocol, to provide reduced acknowledgment control traffic, error recovery and congestion control. A communications link is established between a transmitter and a receiver. Setting the communications link includes setting a network congestion window to an initial length. A sequence, or stream, of data packets is sent from the transmitter to the receiver. The receiver detects any missing packets, by examining the sequence numbers of the incoming packets, and sends negative acknowledgments, generally no more than four, to the transmitter identifying the missing data packet. When the transmitter receives a negative acknowledgment, it decreases the length of the congestion window, and re-transmits the missing packet. Detection and use of round-trip time, re-transmission time-out are provided.